

CLAIMS

What is claimed is:

1. A pharmaceutical composition for mitigating ischemic and hemorrhagic tissue damage comprising albumin and a polyunsaturated fatty acid.
- 5 2. An isolated pharmaceutical composition for mitigating ischemic and hemorrhagic tissue damage comprising albumin and a polyunsaturated fatty acid.
3. The isolated pharmaceutical composition of claim 2 wherein the albumin is human serum albumin.
4. The isolated pharmaceutical composition of claim 2 wherein the albumin is recombinant
10 human albumin.
5. The isolated pharmaceutical composition of claim 2 wherein the polyunsaturated fatty acid is docosahexaenoic acid.
6. The isolated pharmaceutical composition of claim 5 wherein the docosahexaenoic acid is physically bound to the albumin.
- 15 7. The isolated pharmaceutical composition of claim 6 wherein the amount of docosahexaenoic acid physically bound to the albumin is in the range of about 2 to about 3 mg per gram of albumin.
8. A method of preparing a pharmaceutical composition for mitigating ischemic and hemorrhagic tissue damage comprising the steps of: forming an albumin-polyunsaturated fatty acid complex by incubating albumin in the presence of a polyunsaturated fatty acid such that the

polyunsaturated fatty acid physically binds to the albumin; and storing said albumin-polyunsaturated fatty acid complex under nitrogen until needed.

9. The method of claim 8 wherein said albumin is human serum albumin.
10. The method of claim 8 wherein said albumin is recombinant human albumin.
- 5 11. The method of claim 8 wherein said polyunsaturated fatty acid is docosahexaenoic acid.
12. A method of inhibiting ischemic and hemorrhagic tissue damage comprising administering a therapeutically effective dose of a pharmaceutical composition comprising albumin and a polyunsaturated fatty acid.
13. The method of claim 12 wherein the albumin is human serum albumin.
- 10 14. The method of claim 12 wherein the albumin is recombinant human albumin.
15. The method of claim 12 wherein the polyunsaturated fatty acid is docosahexaenoic acid.
16. The method of claim 15 wherein the pharmaceutical composition is prepared by forming an albumin-polyunsaturated fatty acid complex by incubating albumin in the presence of docosahexaenoic acid such that the docosahexaenoic acid physically binds to the albumin forming an
- 15 albumin-docosahexaenoic acid complex.
17. The method of claim 16 wherein the therapeutically effective dose comprises from about 0.25 grams per kilogram of bodyweight to about 2.5 grams per kilogram of bodyweight of the albumin-docosahexaenoic acid complex on an albumin weight basis.

18. The method of claim 16 wherein the therapeutically effective dose comprises from about 0.5 milligrams per kilogram of bodyweight to about 7.5 milligrams per kilogram of bodyweight of the albumin-docosahexaenoic acid complex on an docosahexaenoic acid weight basis.